

TITLE: MEANS AND METHODS FOR  
FIBROBLAST-LIKE OR MACROPHAGE-  
LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Docket No.: 2578-3982.3US

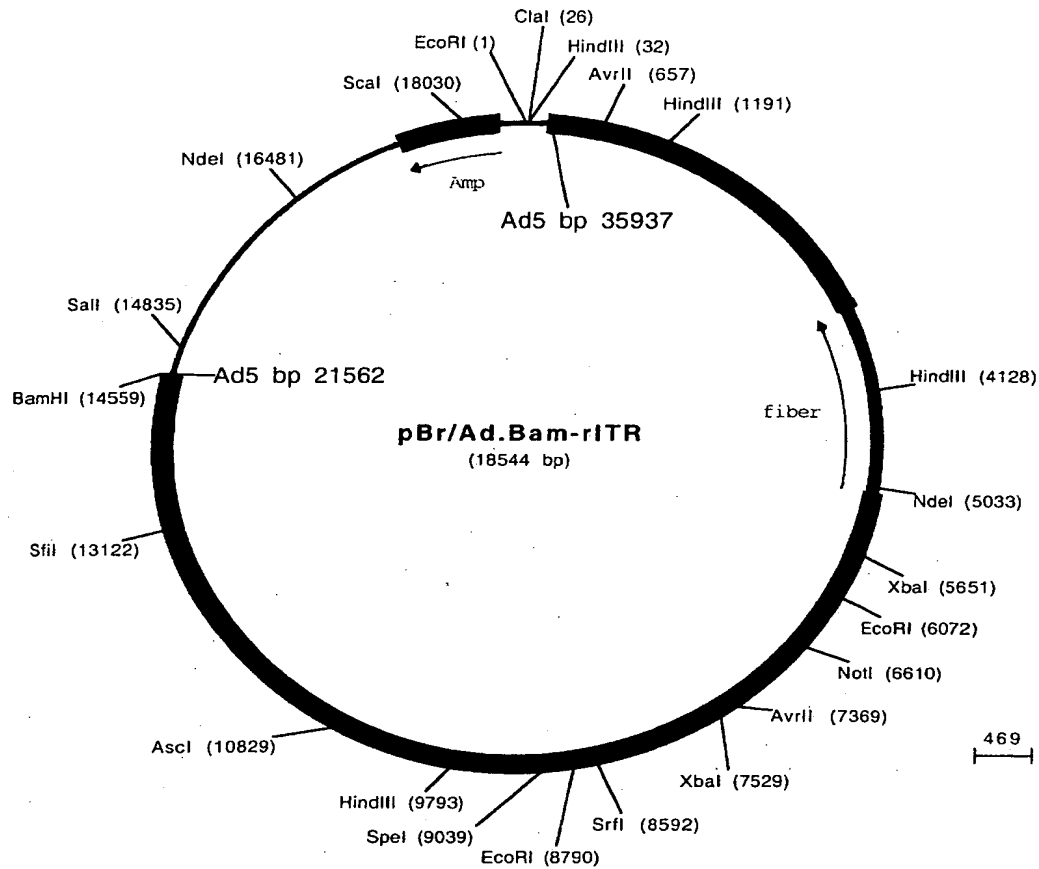


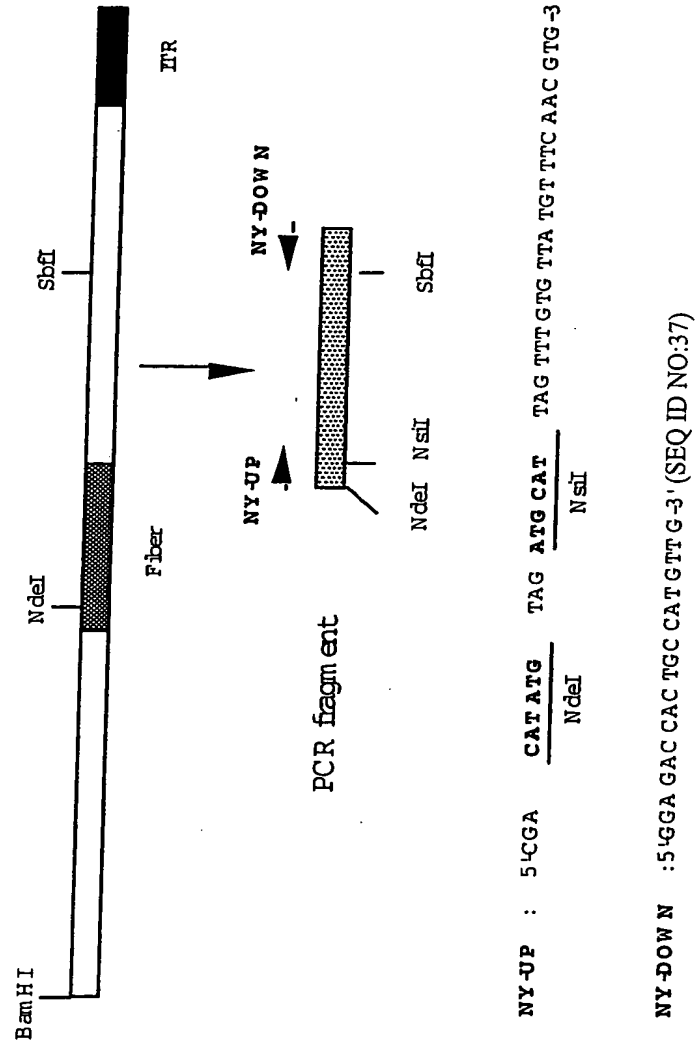
FIG. 1

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FIG. 2



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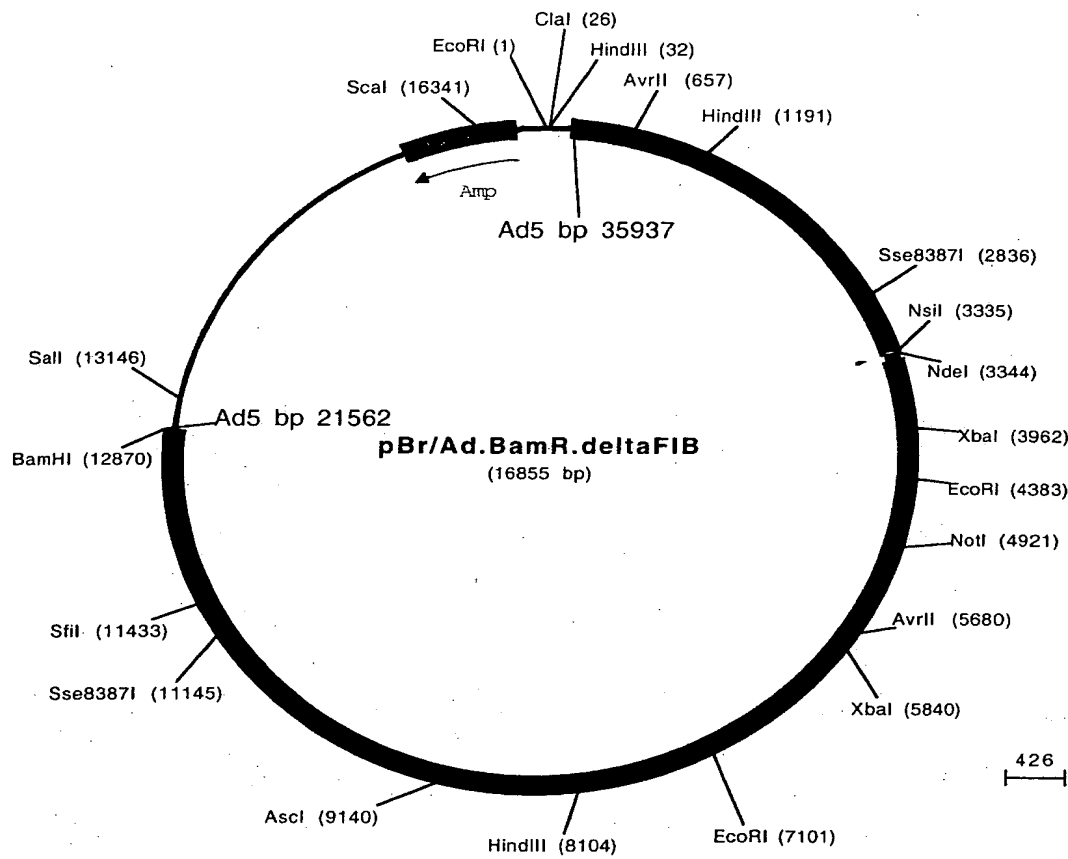


FIG. 3

TITLE: MEANS AND METHODS FOR  
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FIG. 4

ATGAAGCGCGAAGACCGTCTGAAGATACCTTCAACCCCGTGTATCCATATGAAGATGAAGCAGCT  
CACAAACACCCCTTTATAAACCCCTGGTTTCATTTCCCTCAATGGTTTTGCACAAAGCCAGATGGAGT  
TCTAACTCTTAAATGTGTTAATCCACTCACTACCGCCAGCGACCCCTCCAACCTTAAAGTTGGAAGC  
AGTCTTACAGTAGATACTATCGATGGGTCTTTGGAGGAAATATAACTGCCGAAGCGCCACTCACA  
AACTAACCACTCCATAGGTTTATTAATAGGATCTGGCTTGCAAAACAAAGGATGATAAACCTTTGTTT  
ATCGCTGGGAGATGGGTTGTTAAACAAAGGATGATAAACATATGTTTATCGCTGGGAGATGGGTTAATA  
ACAAAAATGATGTACTATGTGCCAACTAGGACATGGCCTTGTTGACTCTTCCAATGCTATCA  
CCATAGAAAACACACCTTGTGGACAGGCGCAAAACCAAGCGCCCAACTGTGTAATTAAAGAGGGAGA  
AGATTCCCCAGACTGTAAGCTCACTTTAGTTCTAGTGAAGATGGAGGACTGATAAATGGATACATA  
ACATTAAATGGGAGCCTCAGAAATATACTAACACCTTTGTTTAAAAACAATCAAGTTACAATCGATGTA  
ACCTCGCATTTGATAATACTGGCCAAATTAATTACTTACCTATCATCCCTTAAAGTAACCTGAACCTT  
TAAAGACAACCAAAACATGGCTACTGGAACCATACCAAGTGCACAAAGGCTTCATGCCCCAGCACACC  
GCCTATCCATTTTAAACATACGCCACTGAGACCCCTAAATGAAGATTACATTTATGGAGAGTGTACT  
ACAAATCTACCAATGGAACCTCTCTTTCCACTAAAAGTTACTGTCACTAACACAGACGTATGTTAGC  
TTCTGGAATGGCCTATGCTATGAATTTTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGAACTACC  
GAAGTCACTCTCATACCTCCCCCTTCTTTTTTCTTATATATCAGAGAAGATGACTGAATGCATTAG  
(SEQ ID NO:32)

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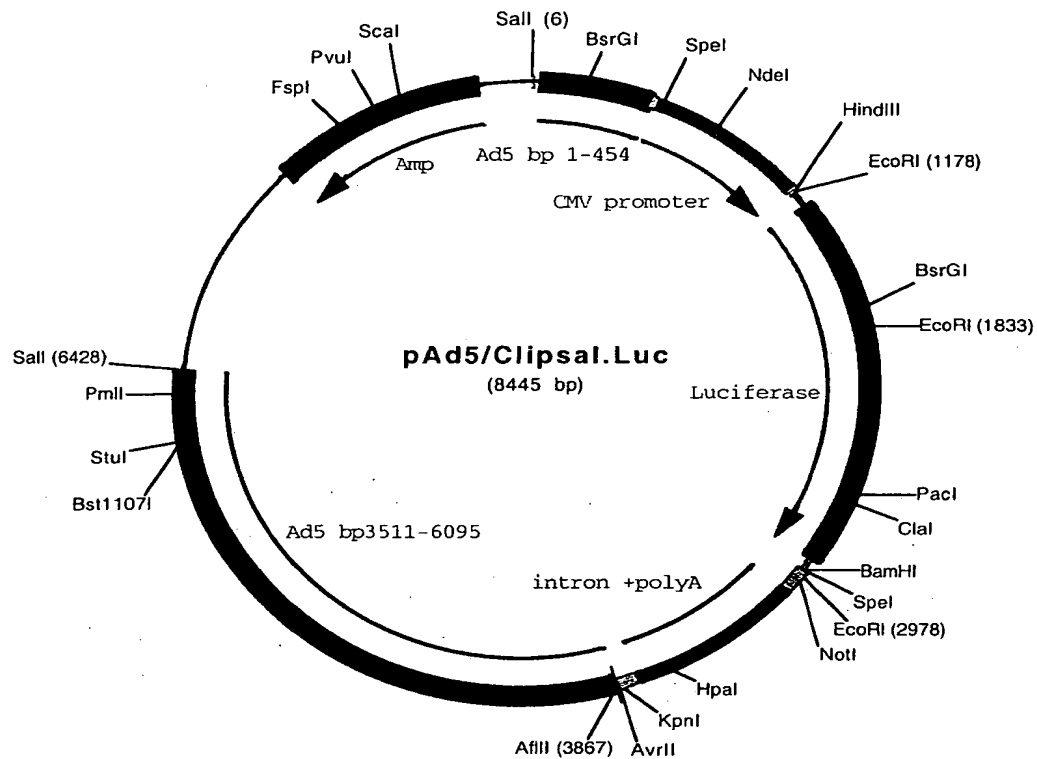


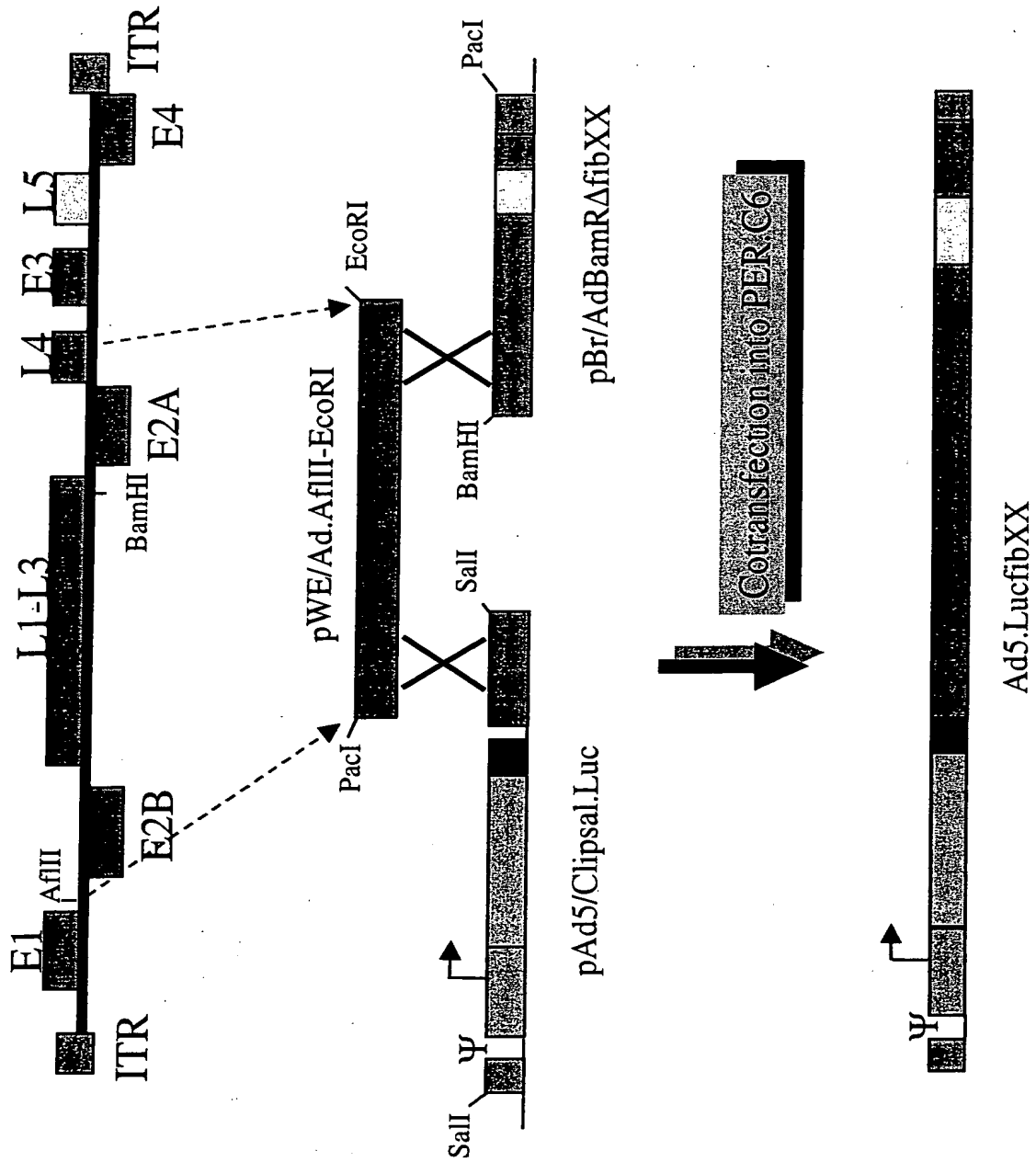
FIG. 5

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Inventor: Vogels et al.

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FIG. 6



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FIG. 7A

Alignment Report of alignment DNA, using Clustal method with Weighted residue weight table.  
Wednesday, March 31, 1999 16:13

1	ATGGCC-C	AAACGAGCTCGGCTAAAGCAGCTCCTTCAATCCGGTCTACCCCT	Fiber 16 Genbank	SEQ ID NO:33
1	ATGAAGCGCGCAAGACCGTGA-GATACTTCAACCCGTTATCCAT	Ad5/16 Fiber DNA	SEQ ID NO:38	
50	ATGAAGATGAAAGCAGCTCAACAACCCCTTTATAAACCCCTGGTTTCATT	Fiber 16 Genbank		
50	ATGAAGATGAAAGCAGCTCAACAACCCCTTTATAAACCCCTGGTTTCATT	Ad5/16 Fiber DNA		
100	TCCTCAAATGGTTTGTGCACAAAGCCCAAGATGGAGTTCTAACTCTTAAATG	Fiber 16 Genbank		
100	TCCTCAAATGGTTTGTGCACAAAGCCCAAGATGGAGTTCTAACTCTTAAATG	Ad5/16 Fiber DNA		
150	TGTTAATCCACTCACTACCGCCAGCGGACCCCTCCAACTTAAAGTTGGAA	Fiber 16 Genbank		
150	TGTTAATCCACTCACTACCGCCAGCGGACCCCTCCAACTTAAAGTTGGAA	Ad5/16 Fiber DNA		
200	GCAGTCTTACAGTAGATACTATCGATGGGTCTTTGGAGGAAATAATACT	Fiber 16 Genbank		
200	GCAGTCTTACAGTAGATACTATCGATGGGTCTTTGGAGGAAATAATACT	Ad5/16 Fiber DNA		
250	GCCGACGCGCCACTCACTAAACTAACCACTCCATAGGTTTATAATAGG	Fiber 16 Genbank		
250	GCCGACGCGCCACTCACTAAACTAACCACTCCATAGGTTTATAATAGG	Ad5/16 Fiber DNA		
300	ATCTGGCTTGCAAAACAAGGATGATAAACTTTGTTTATCGCTGGGAGATG	Fiber 16 Genbank		
300	ATCTGGCTTGCAAAACAAGGATGATAAACTTTGTTTATCGCTGGGAGATG	Ad5/16 Fiber DNA		
350	GGTTGGTAAACAAGGATGATAAACTATGTTTATCGCTGGGAGATGGGTTA	Fiber 16 Genbank		
350	GGTTGGTAAACAAGGATGATAAACTATGTTTATCGCTGGGAGATGGGTTA	Ad5/16 Fiber DNA		
400	ATAACAATAAATGATGTAATACTATGTGTTTATCGCTGGGAGATGGGTTT	Fiber 16 Genbank		
400	ATAACAATAAATGATGTAATACTATGTGTTTATCGCTGGGAGATGGGTTT	Ad5/16 Fiber DNA		
450	TGACTCTTCCCAATGCTATCACCATAGAAAAACAACACCTTGTGGACAGGCG	Fiber 16 Genbank		
450	TGACTCTTCCCAATGCTATCACCATAGAAAAACAACACCTTGTGGACAGGCG	Ad5/16 Fiber DNA		
500	CAAAACCAAGCGCCCACTGTGTAATTAAGAGGGAGAAAGATTCCCCAGAC	Fiber 16 Genbank		
500	CAAAACCAAGCGCCCACTGTGTAATTAAGAGGGAGAAAGATTCCCCAGAC	Ad5/16 Fiber DNA		
550	TGTAAGCTCACTTTAGTTCTAGTGAAGAAATGGAGGACTGATAAATGGATA	Fiber 16 Genbank		
550	TGTAAGCTCACTTTAGTTCTAGTGAAGAAATGGAGGACTGATAAATGGATA	Ad5/16 Fiber DNA		

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FIG. 7B

```
600 CATAACATTAAATGGGAGCCTCAGAAATATACTAATAACACCTTGTTTAAACA Fiber 16 Genbank
600 CATAACATTAAATGGGAGCCTCAGAAATATACTAATAACACCTTGTTTAAACA Ad5/16 Fiber DNA

650 ATCAAGTTACAAATCGATGTAAACCTCGCAATTTGATAATACTGGCCAAAT Fiber 16 Genbank
650 ATCAAGTTACAAATCGATGTAAACCTCGCAATTTGATAATACTGGCCAAAT Ad5/16 Fiber DNA

700 ATTACTTACCCTATCATCCCTTAAAGTAACCTGAACCTTAAAGACAACA Fiber 16 Genbank
700 ATTACTTACCCTATCATCCCTTAAAGTAACCTGAACCTTAAAGACAACA Ad5/16 Fiber DNA

750 AAACATGGCTACTGGAAACCATAAACCACTGAGTGGCCAAAGGCTTCATGCCCCAGCA Fiber 16 Genbank
750 AAACATGGCTACTGGAAACCATAAACCACTGAGTGGCCAAAGGCTTCATGCCCCAGCA Ad5/16 Fiber DNA

800 CCACCGCCTATCCATTATACATACGCACTGAGACCCCTAAATGAAGAT Fiber 16 Genbank
800 CCACCGCCTATCCATTATACATACGCACTGAGACCCCTAAATGAAGAT Ad5/16 Fiber DNA

850 TACATTTATGGAGAGTGTTACTACAAATCTACCAATGGAACTCTCTTCC Fiber 16 Genbank
850 TACATTTATGGAGAGTGTTACTACAAATCTACCAATGGAACTCTCTTCC Ad5/16 Fiber DNA

900 ACTAAAAGTTACTGTCACTAAACAGACGATATGTTAGCTTCTGGAAATGG Fiber 16 Genbank
900 ACTAAAAGTTACTGTCACTAAACAGACGATATGTTAGCTTCTGGAAATGG Ad5/16 Fiber DNA

950 CCTATGCTATGAAATTTTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGA Fiber 16 Genbank
950 CCTATGCTATGAAATTTTTCATGGTCTCTAAATGCAGAGGAAGCCCCGGA Ad5/16 Fiber DNA

1000 ACTACCGAAGTCACCTCATTAACCTCCCCCTTCTTTTATATCAG Fiber 16 Genbank
1000 ACTACCGAAGTCACCTCATTAACCTCCCCCTTCTTTTATATCAG Ad5/16 Fiber DNA

1050 AGAAGATGACTGA
1050 AGAAGATGACTGAATGCATTAGTTTGTGTTATGTTTCAACGTGTTATTT Fiber 16 Genbank
1050 AGAAGATGACTGAATGCATTAGTTTGTGTTATGTTTCAACGTGTTATTT Ad5/16 Fiber DNA

1062
1100 TCAATTG
Fiber 16 Genbank
Ad5/16 Fiber DNA
```

Decoration 'Decoration #1': Box residues that differ from Fiber 16 Genbank.



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FIG. 7C

Alignment Report of alignment.prot, using Clustal method with PAM250 residue weight table.  
Wednesday, March 31, 1999 16:19

1	M	A	K	R	A	R	L	S	S	-	S	F	N	P	V	Y	P	Y	E	D	E	S	S	S	Q	H	P	F	I	N	genbank Fiber 16	(SEQ ID NO:35)
1	M	K	R	A	R	P	S	E	D	T	F	N	P	V	Y	P	Y	E	D	E	S	S	S	Q	H	P	F	I	N	chimeric Ad5/Fib16	(SEQ ID NO:34)	
30	P	G	F	I	S	S	N	G	F	A	Q	S	P	D	G	V	L	T	L	K	C	V	N	P	L	T	T	A	S	G	genbank Fiber 16	
30	P	G	F	I	S	S	N	G	F	A	Q	S	P	D	G	V	L	T	L	K	C	V	N	P	L	T	T	A	S	G	chimeric Ad5/Fib16	
60	P	L	Q	L	K	V	G	S	S	L	T	V	D	T	I	D	G	S	L	E	E	N	I	T	A	A	A	P	L	T	genbank Fiber 16	
60	P	L	Q	L	K	V	G	S	S	L	T	V	D	T	I	D	G	S	L	E	E	N	I	T	A	A	A	P	L	T	chimeric Ad5/Fib16	
90	K	T	N	H	S	I	G	L	L	I	G	S	G	L	Q	T	K	D	D	K	L	C	L	S	L	G	D	G	L	V	genbank Fiber 16	
90	K	T	N	H	S	I	G	L	L	I	G	S	G	L	Q	T	K	D	D	K	L	C	L	S	L	E	D	G	L	V	chimeric Ad5/Fib16	
120	T	K	D	D	K	L	C	L	S	L	G	D	G	L	I	T	K	N	D	V	L	C	A	K	L	G	H	G	L	V	genbank Fiber 16	
120	T	K	D	D	K	L	C	L	S	L	G	D	G	L	I	T	K	N	D	V	L	C	A	K	L	G	H	G	L	V	chimeric Ad5/Fib16	
150	F	D	S	S	N	A	I	T	I	E	N	N	T	L	W	T	G	A	K	P	S	A	N	C	V	I	K	E	G	E	genbank Fiber 16	
150	F	D	S	S	N	A	I	T	I	E	N	N	T	L	W	T	G	A	K	P	S	A	N	C	V	I	K	E	G	E	chimeric Ad5/Fib16	
180	D	S	P	D	C	K	L	T	L	V	L	V	K	N	G	G	L	I	N	G	Y	I	T	L	M	G	A	S	E	Y	genbank Fiber 16	
180	D	S	P	D	C	K	L	T	L	V	L	V	K	N	G	G	L	I	N	G	Y	I	T	L	M	G	A	S	E	Y	chimeric Ad5/Fib16	
210	T	N	T	L	F	K	N	N	Q	V	T	I	D	V	N	L	A	F	D	N	T	G	Q	I	I	T	Y	L	S	S	genbank Fiber 16	
210	T	N	T	L	F	K	N	N	Q	V	T	I	D	V	N	L	A	F	D	N	T	G	Q	I	I	T	Y	L	S	S	chimeric Ad5/Fib16	
240	L	K	S	N	L	N	F	K	D	N	Q	N	M	A	T	G	T	I	T	S	A	K	G	F	M	P	S	T	T	A	genbank Fiber 16	
240	L	K	S	N	L	N	F	K	D	N	Q	N	M	A	T	G	T	I	T	S	A	K	G	F	M	P	S	T	T	A	chimeric Ad5/Fib16	
270	Y	P	F	I	T	Y	A	T	E	T	L	N	E	D	Y	I	Y	G	E	C	Y	K	S	T	N	G	T	L	F	genbank Fiber 16		
270	Y	P	F	I	T	Y	A	T	E	T	L	N	E	D	Y	I	Y	G	E	C	Y	K	S	T	N	G	T	L	F	chimeric Ad5/Fib16		
300	P	L	K	V	T	V	T	L	N	R	R	M	L	A	S	G	M	A	Y	A	M	N	F	S	W	S	L	N	A	E	genbank Fiber 16	
300	P	L	K	V	T	V	T	L	N	R	R	M	L	A	S	G	M	A	Y	A	M	N	F	S	W	S	L	N	A	E	chimeric Ad5/Fib16	
330	E	A	P	E	T	T	E	V	T	L	I	T	S	P	F	F	F	S	Y	I	R	E	D							genbank Fiber 16		
330	E	A	P	E	T	T	E	V	T	L	I	T	S	P	F	F	F	S	Y	I	R	E	D							chimeric Ad5/Fib16		

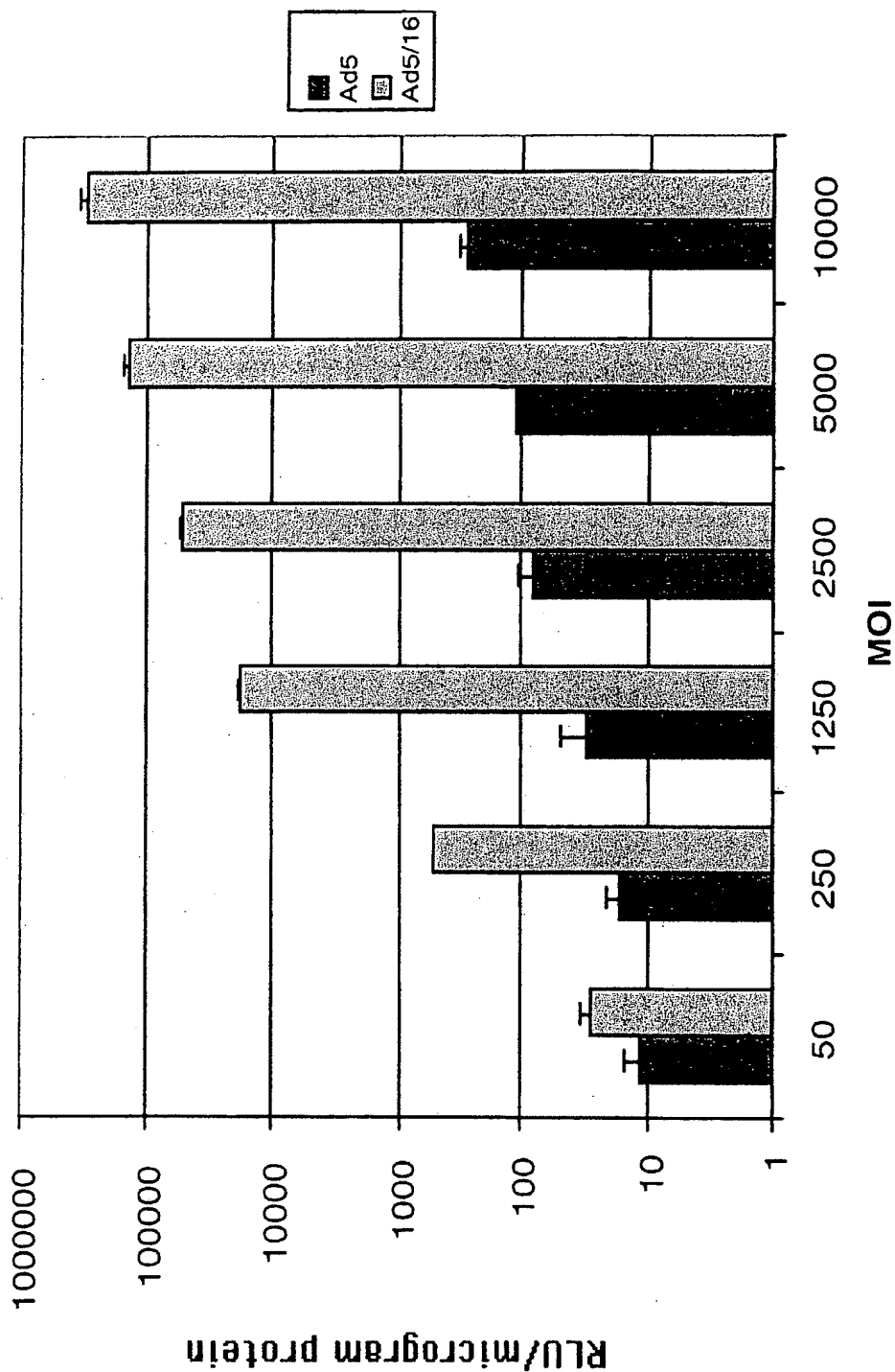
Decoration 'Decoration #1': Box residues that differ from genbank Fiber 16 .

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Inventor: Vogels et al.

Docket No.: 2578-3982.3US

FIG. 8



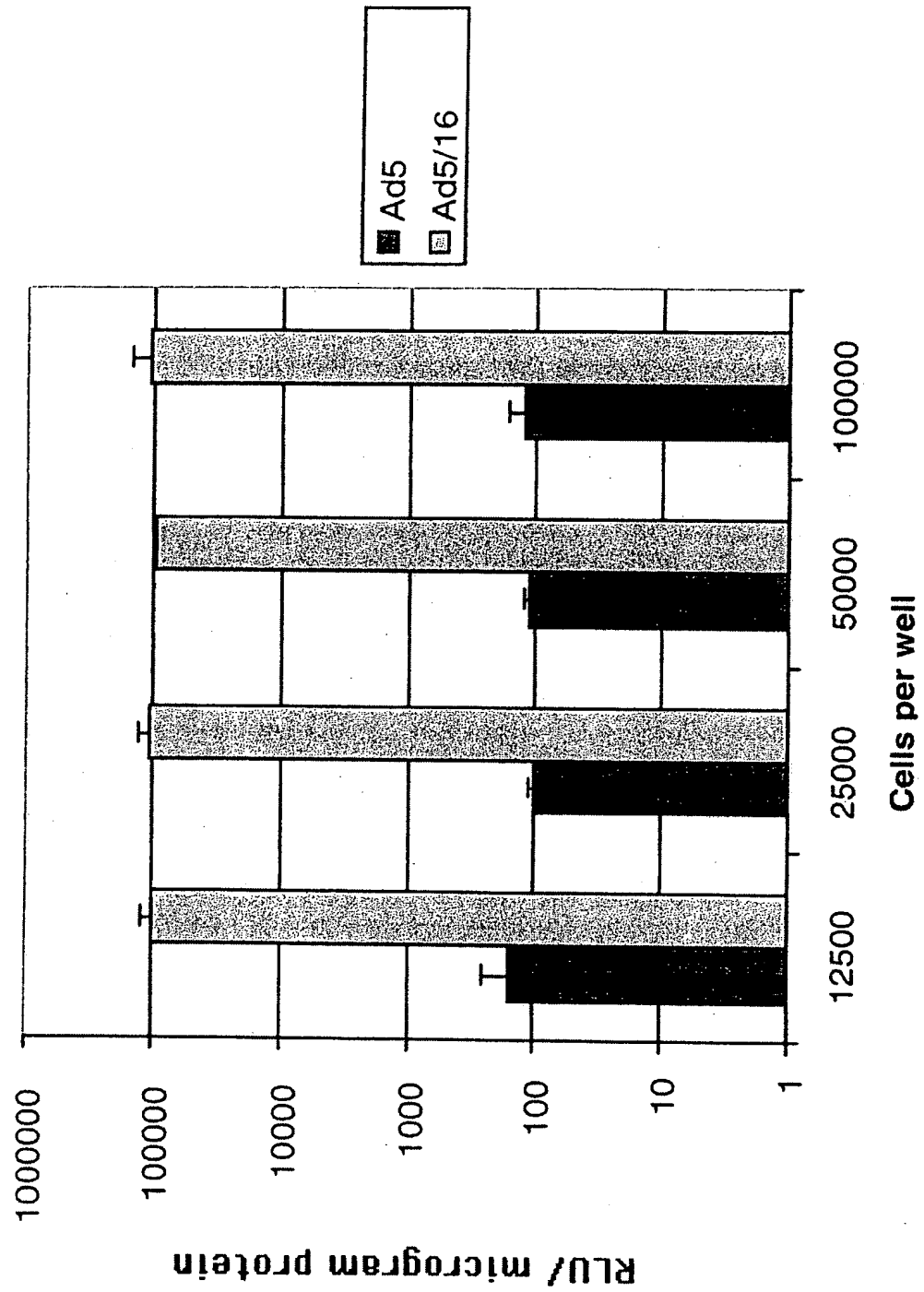
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LIKE CELL TRANSDUCTION

Inventor: Vogels et al.

Docket No.: 2578-3982.3US

FIG. 9

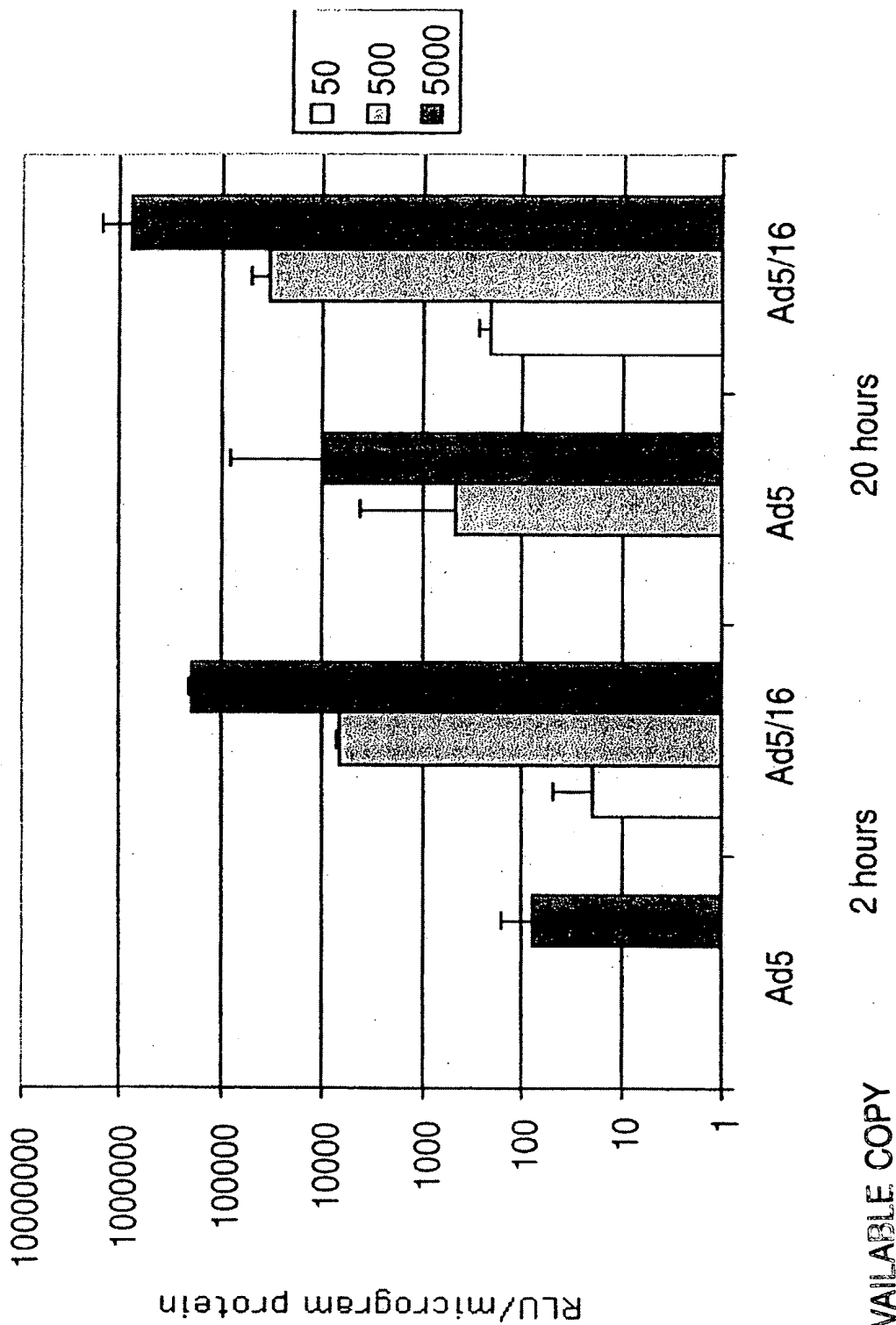


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LIKE CELL TRANSDUCTION

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FIG. 10



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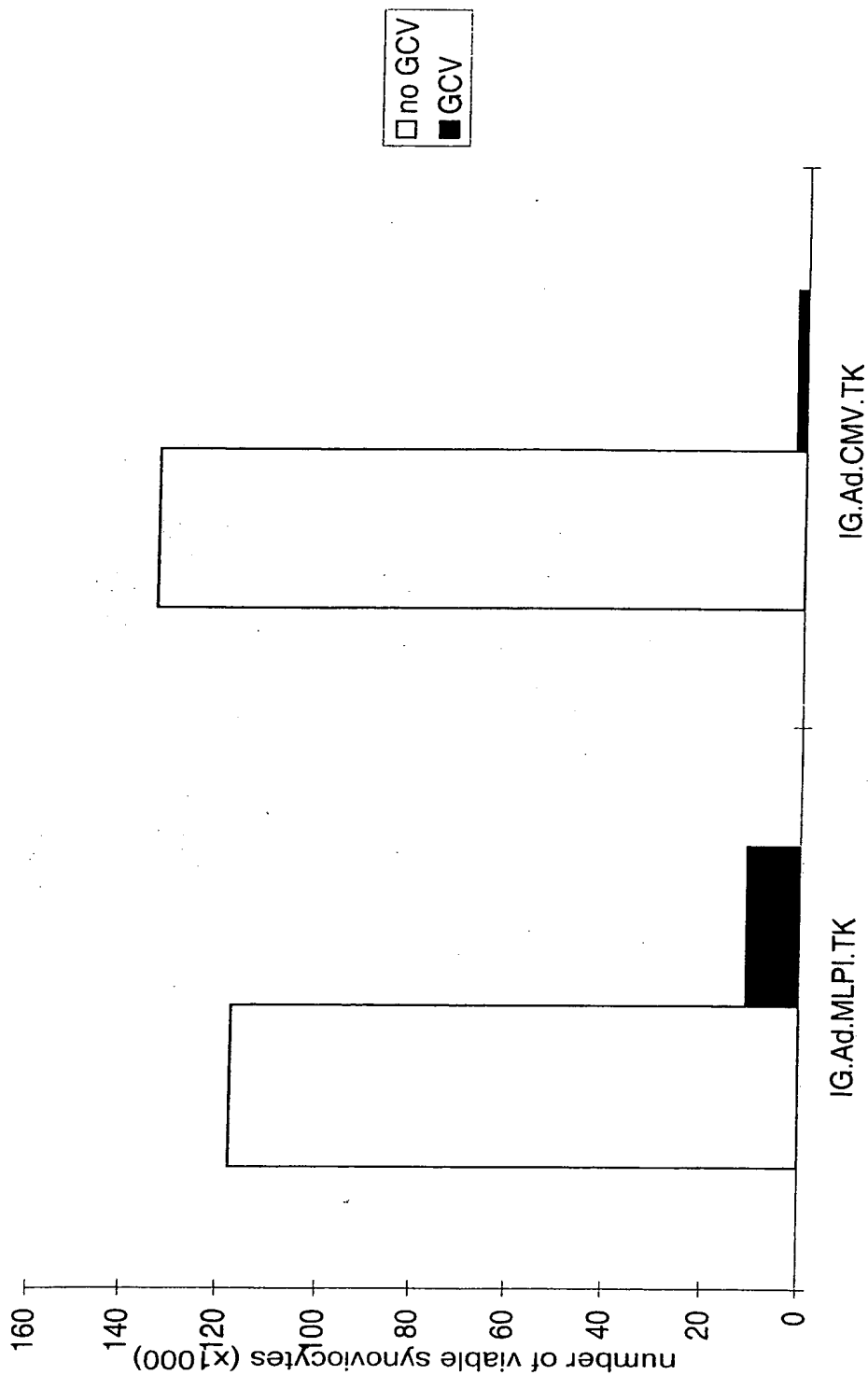
TITLE: MEANS AND METHODS FOR  
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Inventor: Vogels et al.

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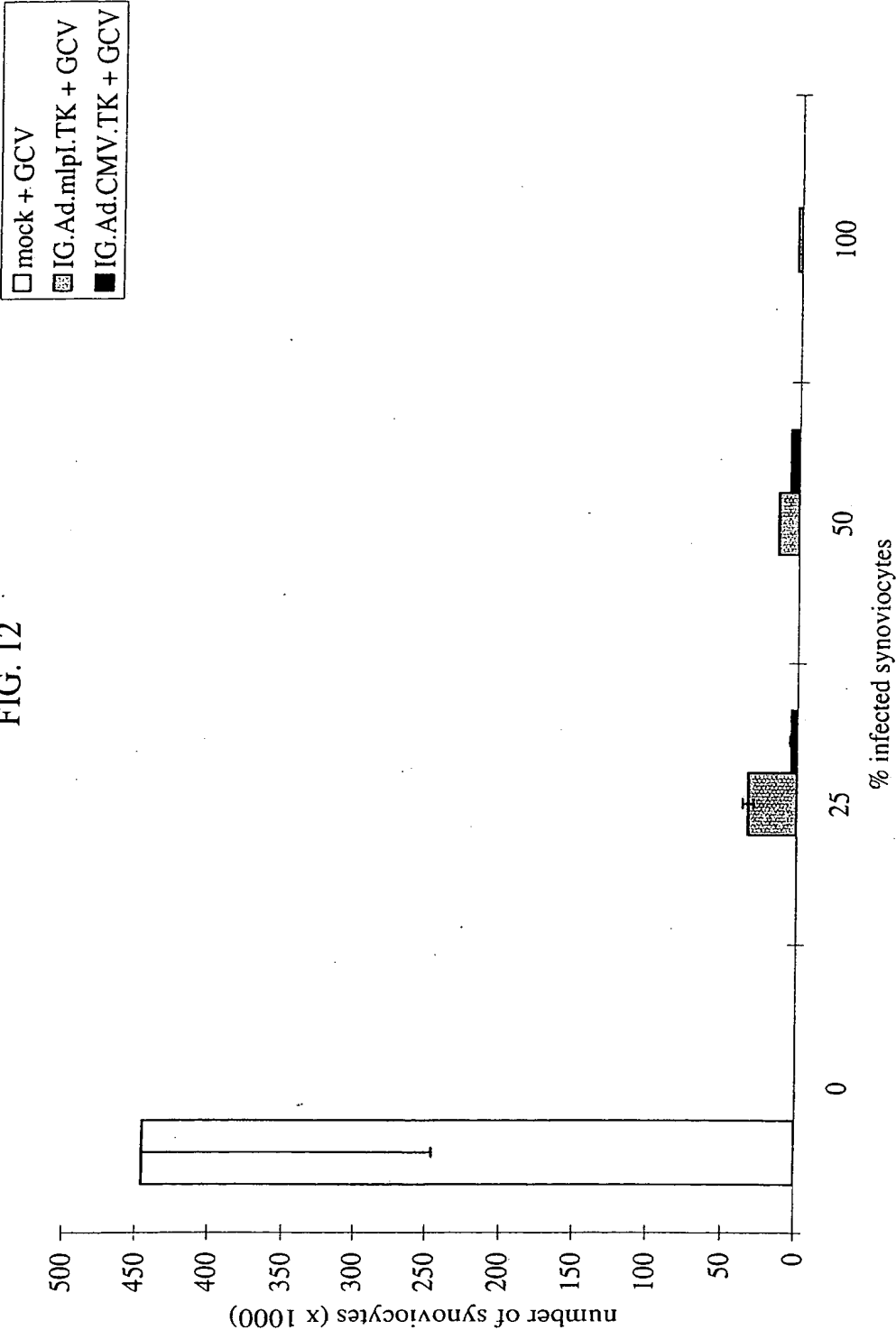
FIG. 11

Synoviocytes infected with Ad.TK



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FIG. 12



TITLE: MEANS AND METHODS FOR  
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LIKE CELL TRANSDUCTION

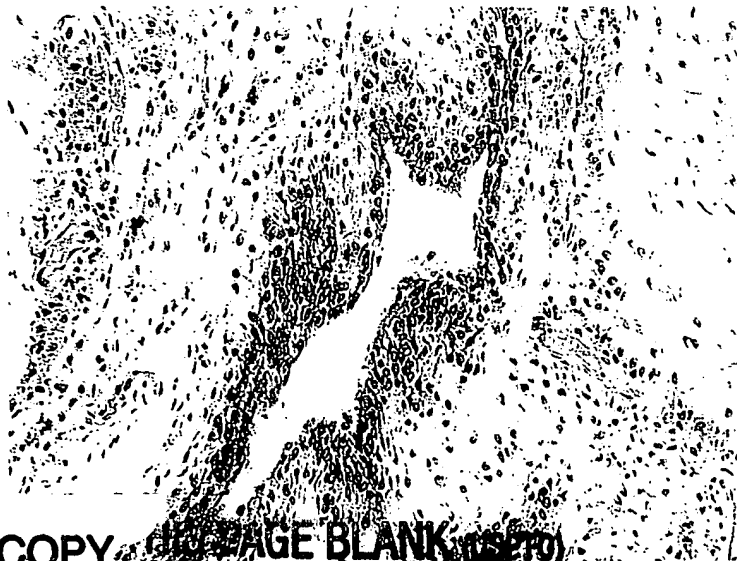
Inventor: Vogels et al.

Docket No.: 2578-3982.3US

FIG. 13A



FIG. 13B

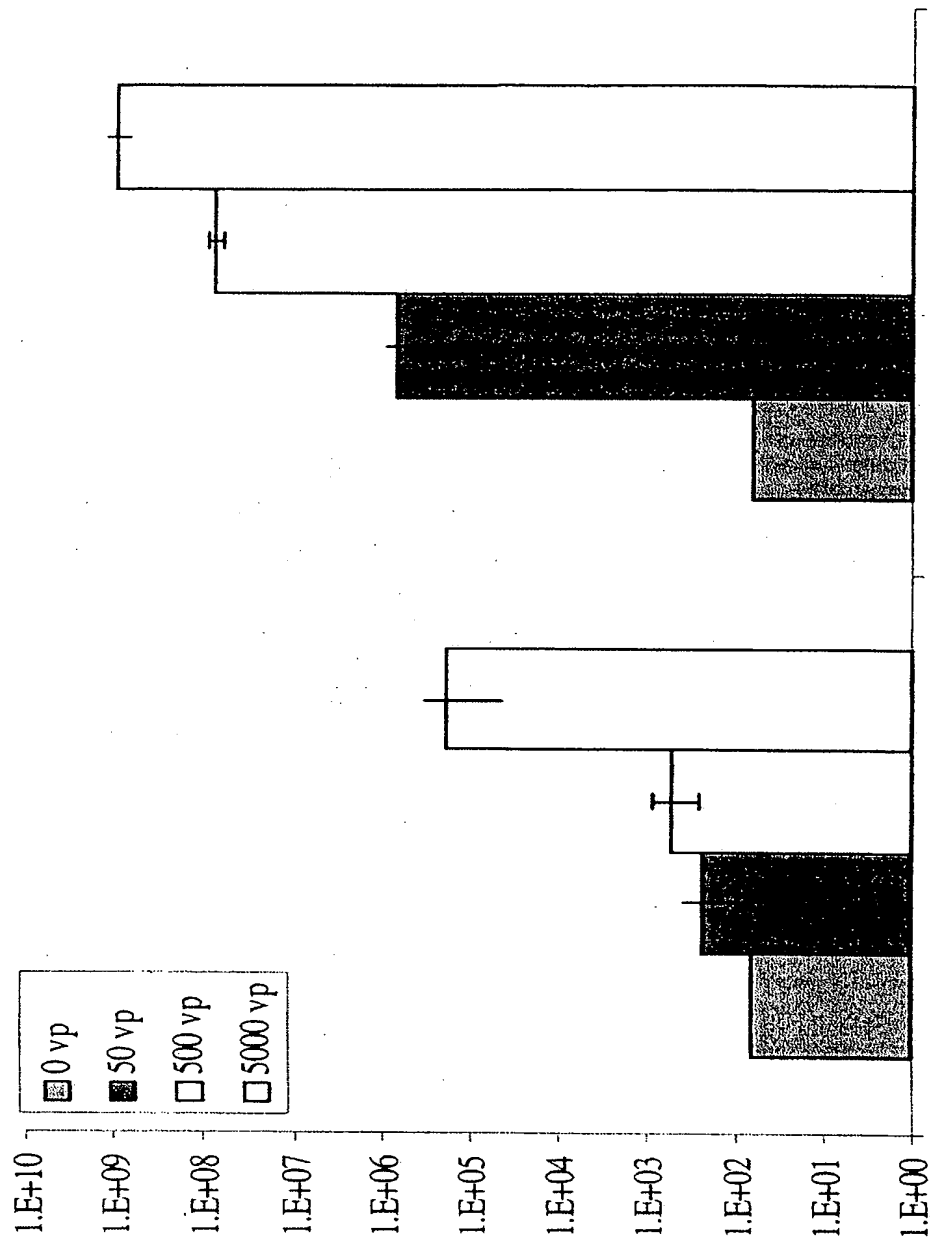


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FIG. 14



Fib 5

Fib 16

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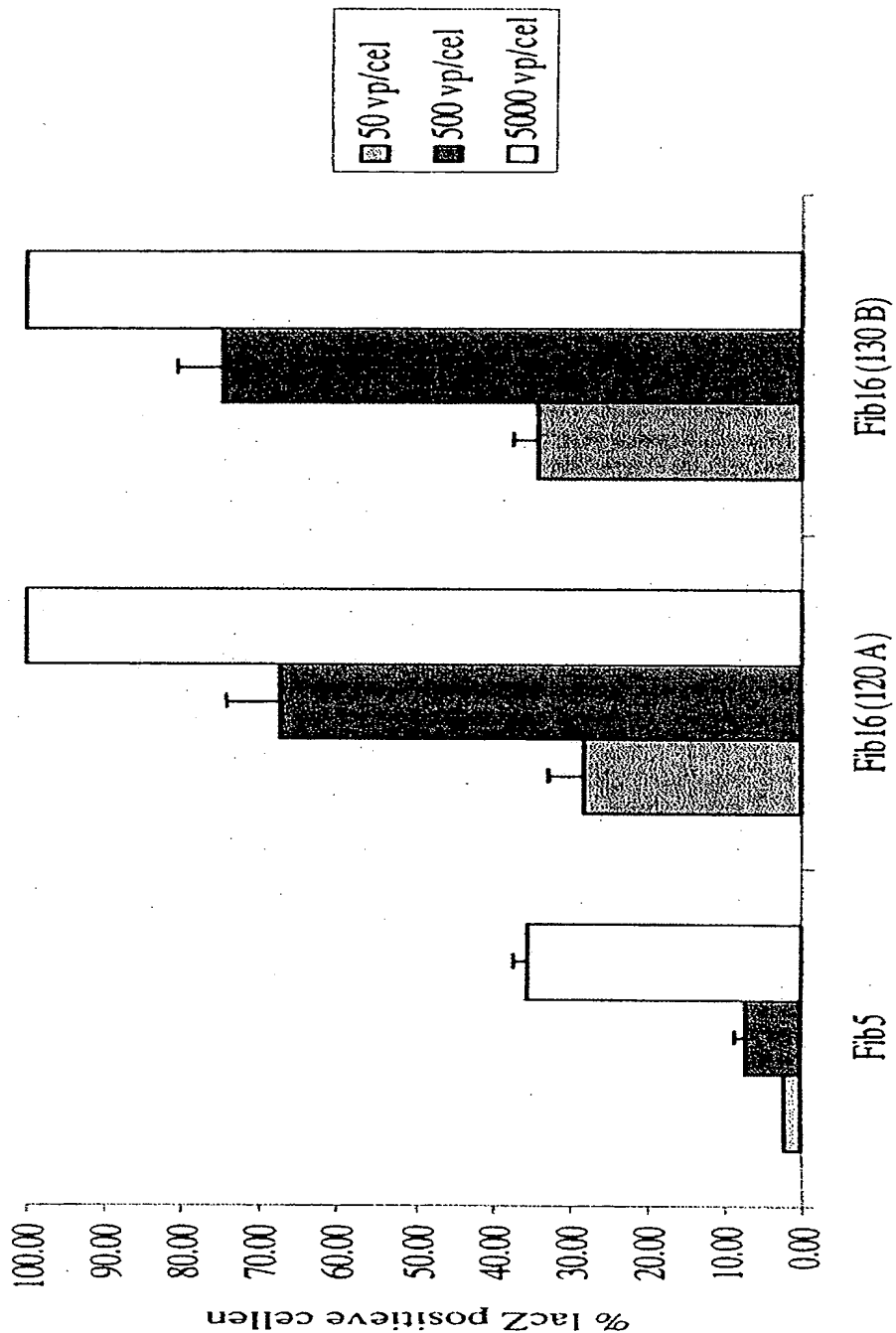


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FIG. 15



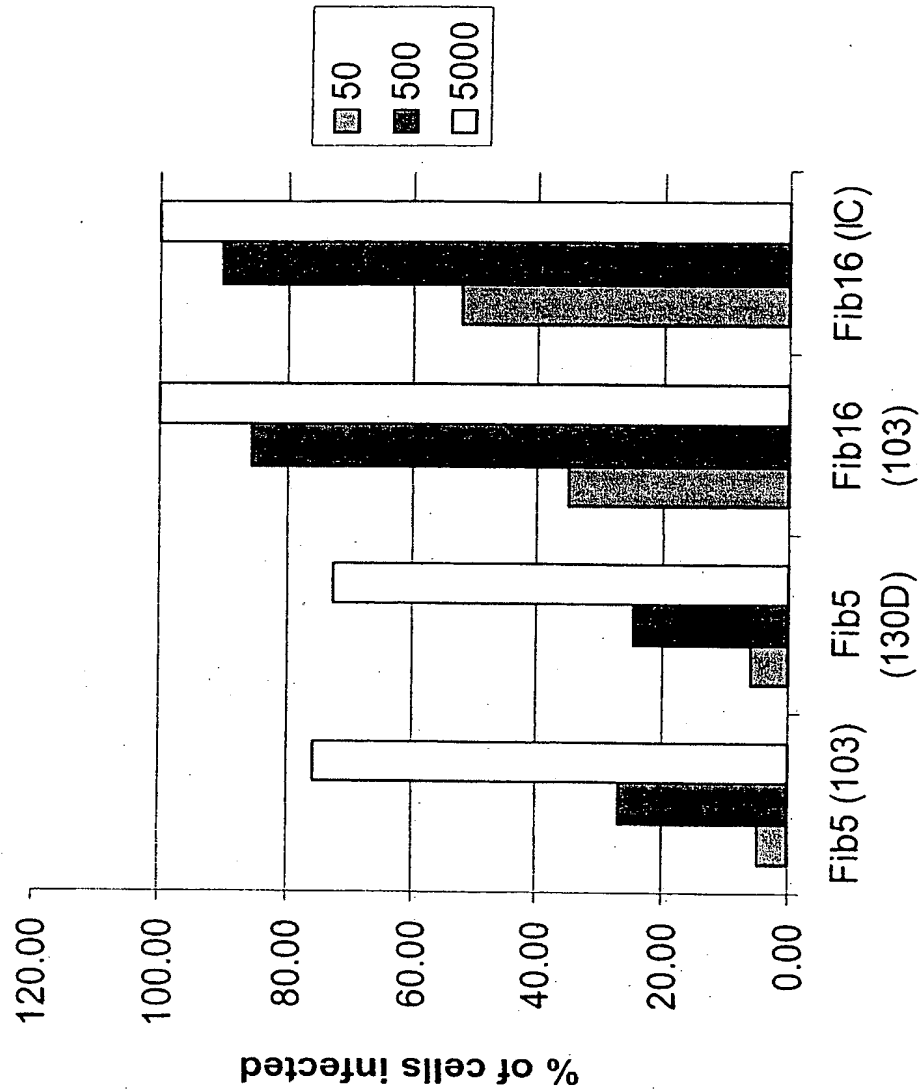
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FIG. 16A

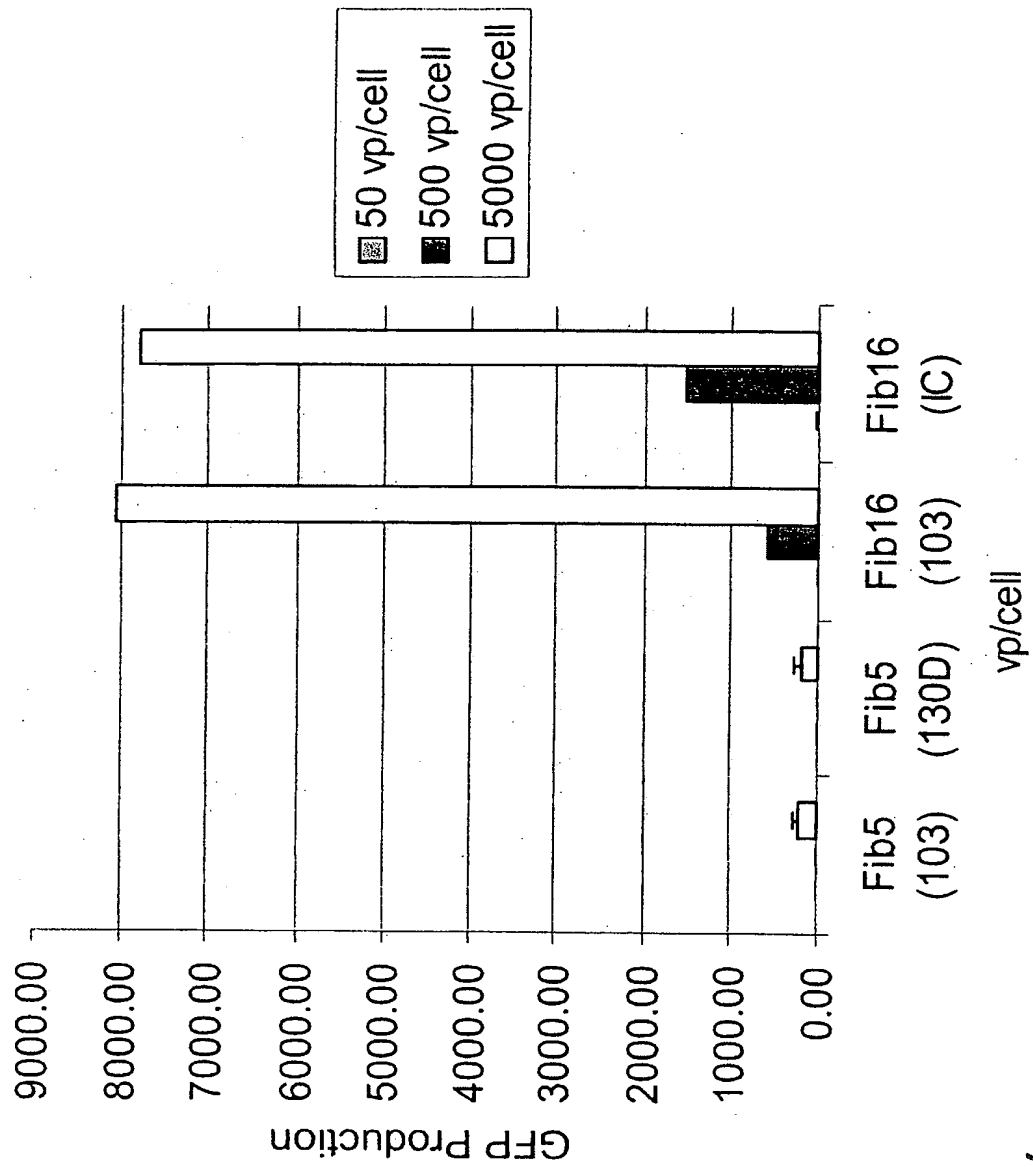


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FIG. 16B

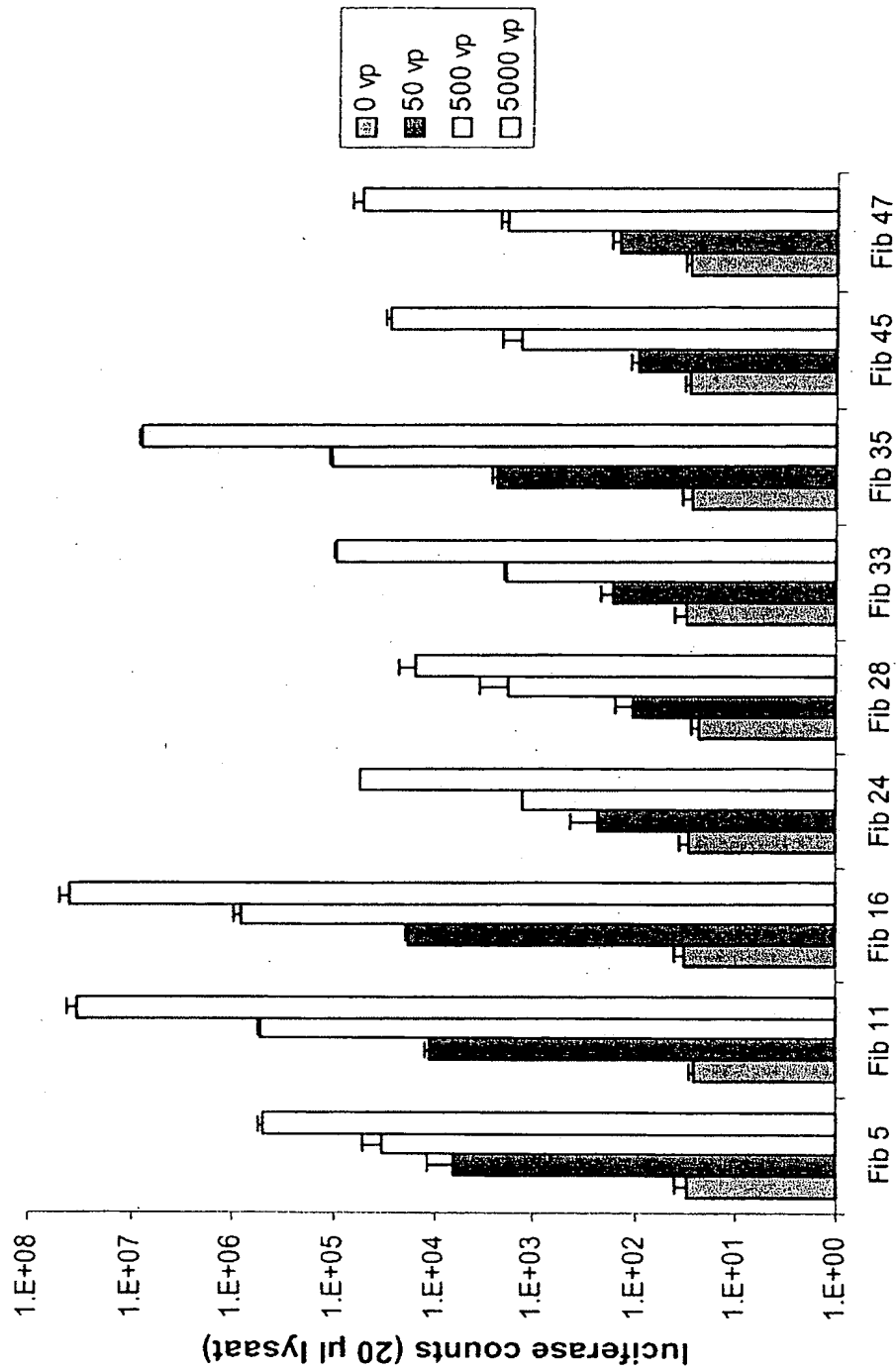


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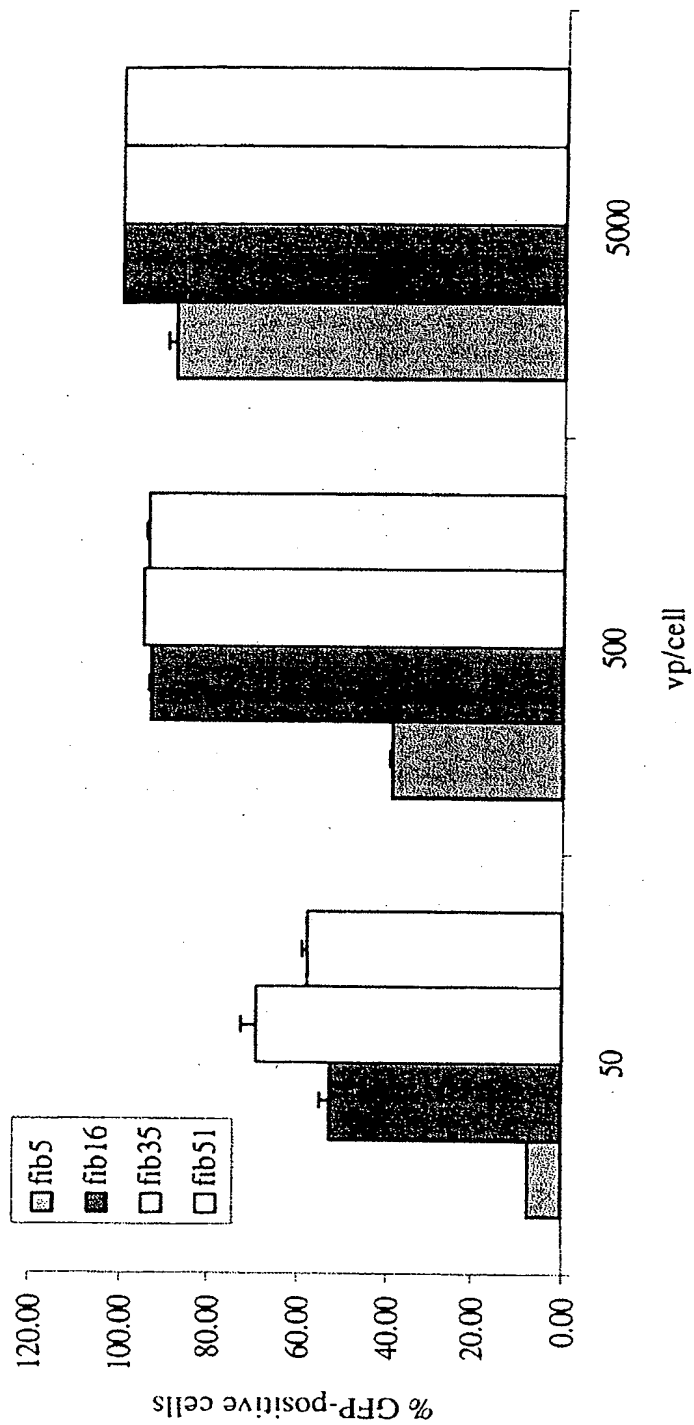
FIG. 17



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FIG. 18A

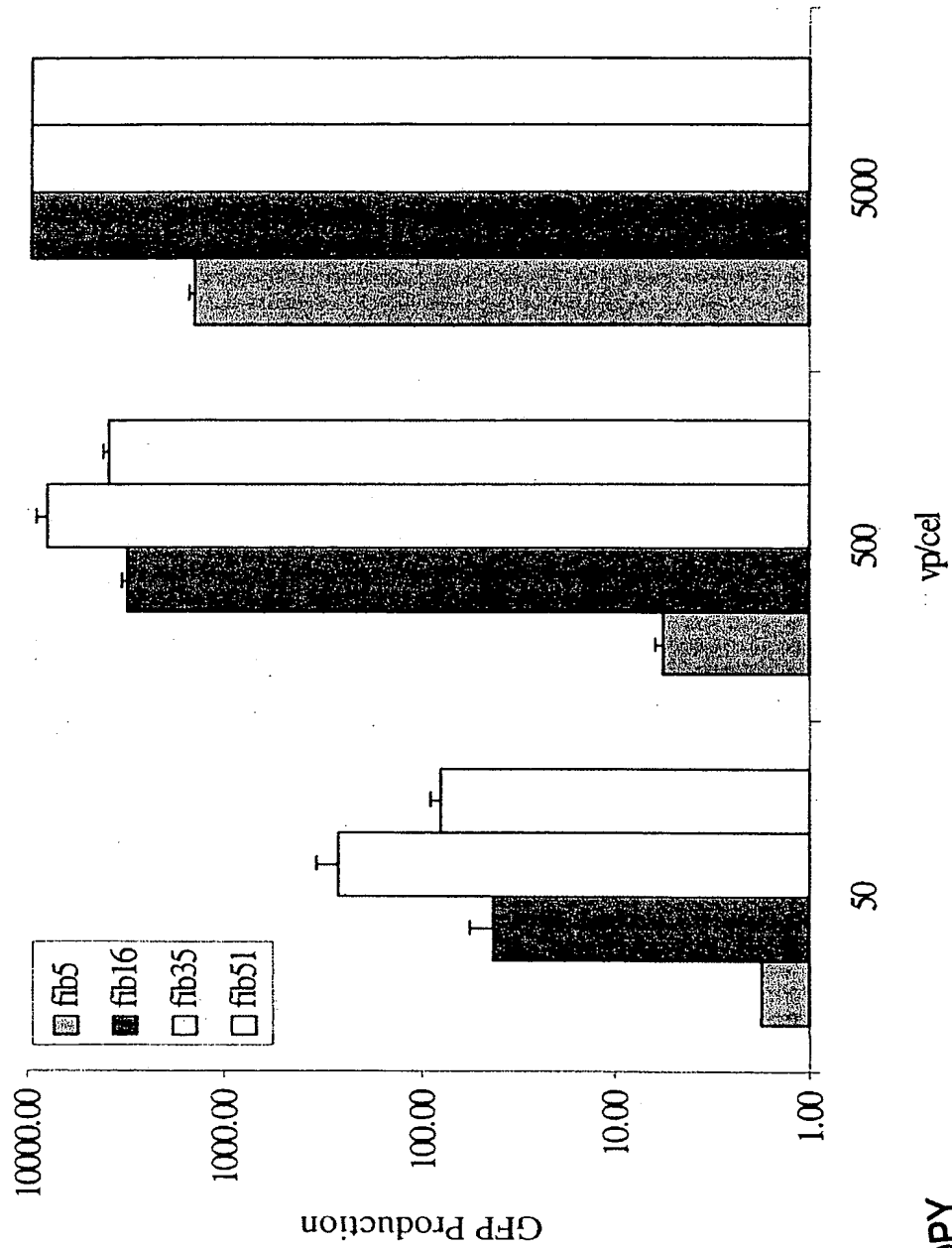


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FIG. 18B



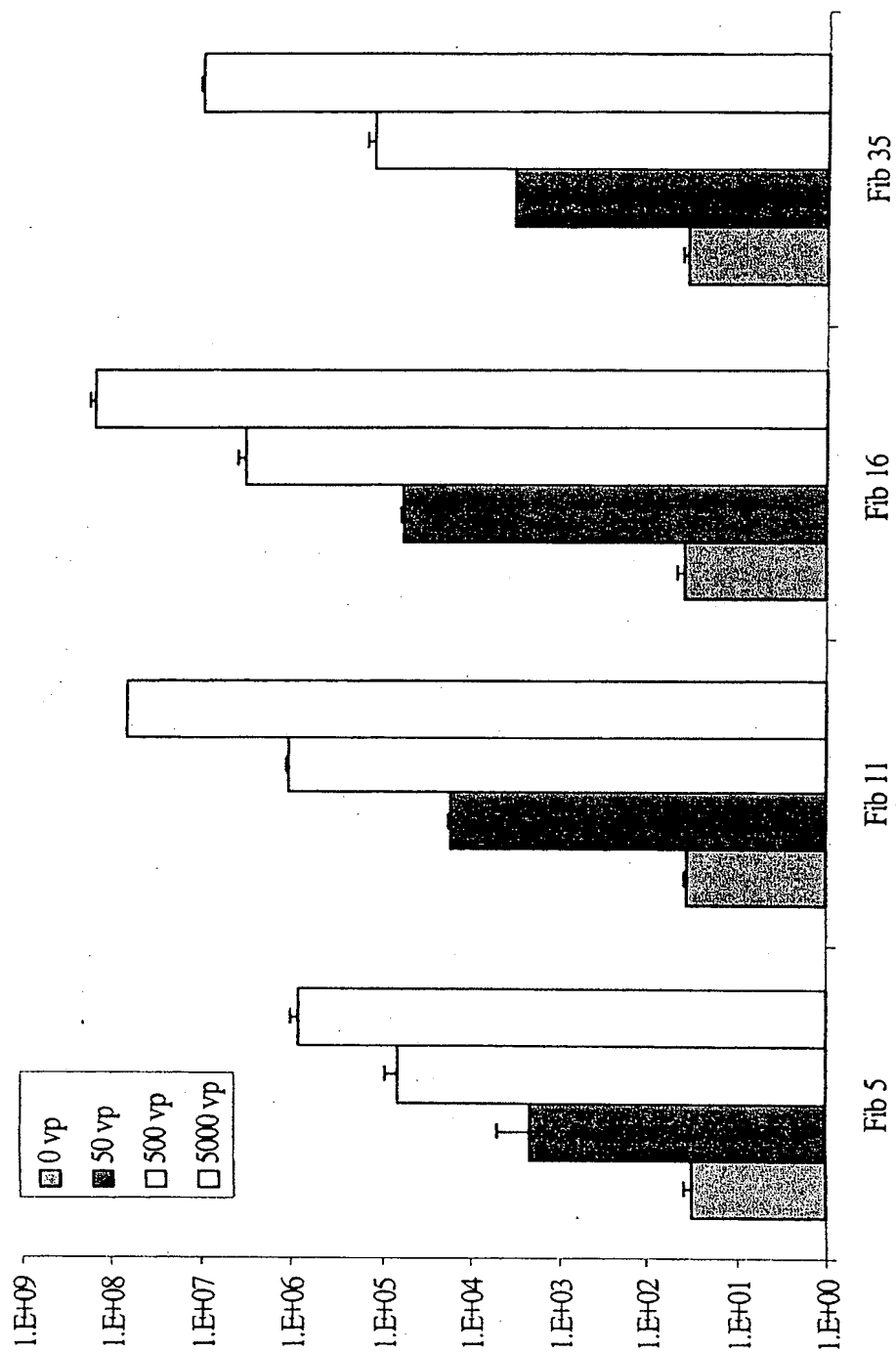
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FIG. 19

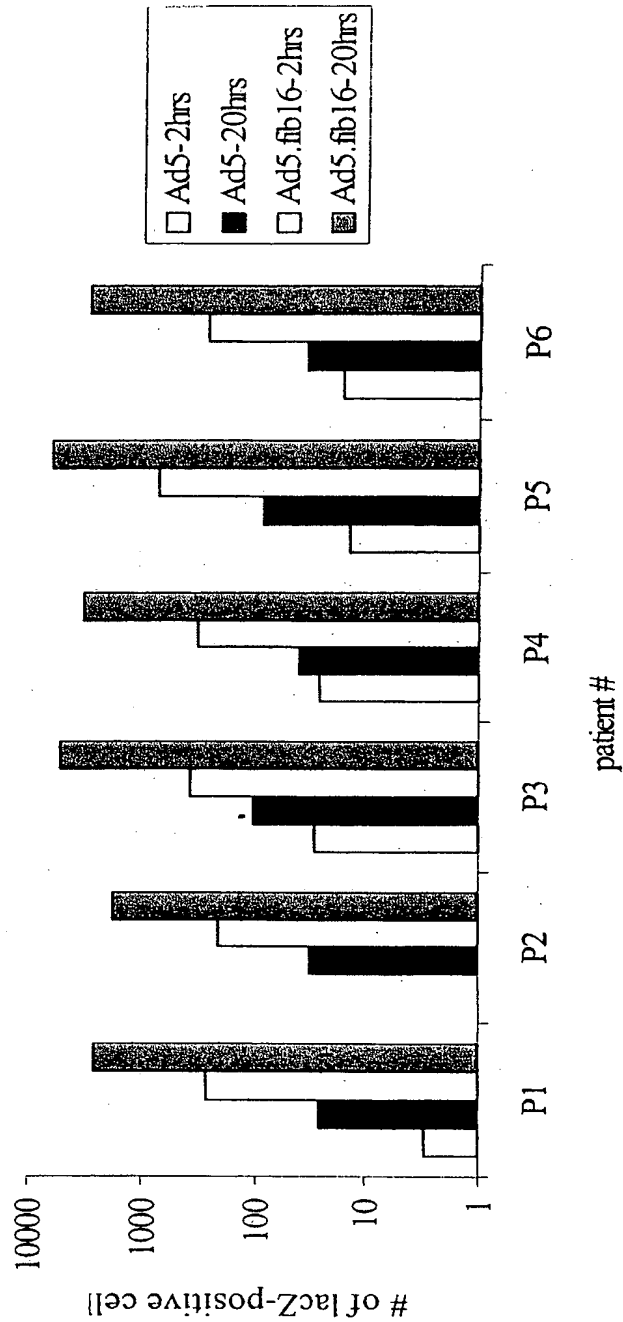


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FIG. 20



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